REPUBLIC OF SEYCHELLES

SEYCHELLES MARINE RADIO FREQUENCIES HANDBOOK

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1.0 Introduction

The maritime radio frequency bands are composed of different channels, which are shared between maritime radio frequency users. It is, therefore, important that mariners operating a maritime radiotelephone equipment understand the purpose of the different channels. Any person operating a maritime radiotelephone equipment on board any vessel should have a certificate of competency such as, Restricted Operator's Certificate of Proficiency (ROCP) or Restricted Operator's Certificate (ROC) or any relevant marine radio operator's certificate, or should at least be under the supervision of a person, who has a certificate of competency. This handbook is intended to give mariners knowledge of the purpose of the different maritime channels currently being used in Seychelles. Frequencies to be used for the Global Maritime Distress and Safety System (GMDSS) are also incorporated in the VHF and MF/HF maritime band plans.

2.0 VHF Maritime Band Plan

Channel	Type of Operation
6	**INTERSHIP SAFETY** This channel is used for ship-to-ship safety messages. It can also be used for communications between ship stations and aircraft stations engaged in coordinated search and rescue operations.
8	**INTERSHIP** These are primary working channels for communications between ships.
10	**INTERSHIP** These are primary working channels for communications between ships.
12	**PORT OPERATIONS** These channels are used in directing movement of ships in or near the ports. Messages must be about the operational handling movement and safety of ships.
13	**NAVIGATIONAL (Bridge-to-bridge)** This channel is designated for use on a world-wide basis as a navigational safety communication channel. Messages must be about navigation, for example, passing and meeting other ships. Messages must also be short and transmission power must not exceed 1 Watt.
16	**DISTRESS, SAFETY AND CALLING** Use this channel to get the attention of another station (calling) or in emergencies (distress and safety).
17	**PILOTAGE (Vessel Docking / Maneuvers)** This channel is limited to intership communications to and from pilots.
70	**DIGITAL SELECTIVE CALLING (DSC)** Use this channel for distress and safety calling, and for general purpose calling using digital selective calling technique.
71	**COAST GUARD** Use this channel to talk to the Seychelles Coast Guard, but first make contact on Channel 16.
AIS 1	**AUTOMATIC IDENTIFICATION SYSTEM (AIS)** Use these two channels for automatic ship identification and surveillance.
AIS 2	

Channel	Licensee of Private channels
11	Island Development Company (IDC)
71	Seychelles Coast Guard (SCG)

3.0 MF/HF Maritime Band Plan (including complementary VHF Band assignments)

3.1 DSC Distress, Safety and Calling Frequencies

Frequency	Band
2187.5 kHz	MF
4207.5 kHz	HF
6312.0 kHz	HF
8414.5 kHz	HF
12577.0 kHz	HF
16804.5 kHz	HF
156.525 MHz (Channel 70)	VHF

DSC alerts consist of a pre-formatted distress message. It is used for initiating communications with ships and Maritime Rescue Co-ordination Centre (MRCC) at the Seychelles Coast Guard. The type of emission used for DSC is J2B. After establishing contact on a DSC channel, both parties must change to an agreed intership/ship-shore working voice channel to exchange messages.

3.2 Radiotelephony Distress and Safety Frequencies

Frequency	Band	Type of Communication
156.8 MHz (Channel 16)	VHF	Radiotelephony
2182.0 kHz	MF	Radiotelephony
All DSC frequencies	VHF/MF/HF	Radiotelephony

3.2.1 Calling Frequencies

Calling Frequency/Channel	Frequency Range
2182 kHz	MF (2 MHz Band)
Channel 16	VHF

These are international distress frequencies in their respective frequency band and operators are required to monitor at least one radiotelephony distress frequency, including Channel 16. That is, continuous listening watch on Channel 16 is mandatory, for the present time.

Safety messages shall be transmitted on a working frequency after preliminary announcement on 2182 kHz. Class of emission used on 2182 kHz are A3E, H3E or J3E.

The class of emission J3E may be used for the exchange of distress traffic on 2182 kHz following the acknowledgement of reception of a distress call using DSC on 2187.5 kHz taking into account that other vessels in the vicinity may not be able to receive this traffic.

3.2.2 Radiotelephony Supplement Distress and Safety Frequencies

Channel Number	Coast Station Transmit	Ship Station Transmit	Type of Communication	Class of Emission
421	4417 kHz	4125 kHz	Radiotelephony	J3E, H3E
606	6516 kHz	6215 kHz	Radiotelephony	J3E, H3E
833	8291 kHz	8291 kHz	Radiotelephony	J3E, H3E
1221	13137 kHz	12290 kHz	Radiotelephony	J3E, H3E
1621	17302 kHz	16420 kHz	Radiotelephony	J3E, H3E

In addition, frequency 4125 kHz may be used by aircraft stations to communicate with stations of the maritime mobile service for distress and safety purposes, including search and rescue (SAR). This is similar to VHF Channel 16. Notice that except for channel 833, all are two-frequency (duplex) single-sideband channels.

3.3 Inter-ship/Ship-Shore Calling Frequencies

Channel Number	Coast Station Transmit	Ship Station Transmit	Emission
421	4417 kHz	4125 kHz	J3E, H3E
606	6516 kHz	6215 kHz	J3E, H3E
821	8779 kHz	8255 kHz	J3E, H3E
1221	13137 kHz	12290 kHz	J3E, H3E
1621	17302 kHz	16420 kHz	J3E, H3E
1806	19770 kHz	18795 kHz	J3E, H3E
2221	22756 kHz	22060 kHz	J3E, H3E
2510	26172 kHz	25097 kHz	J3E, H3E

Before transmitting on distress and safety frequencies, a station must listen on the frequency for a reasonable period of time to make sure that no distress traffic is being sent.

3.3.1 Intership/Ship-Shore Single-Sideband (Simplex) Working Single Frequencies

These are frequencies that are used for the exchange of information after establishing contact on a calling frequency. Hence, calling frequencies must not be used for the exchange of information other than for the purpose of establishing initial contact.

Frequency Band	4 MHz	6 MHz	8 MHz	12 MHz	16 MHz	18/19 MHz	22 MHz	25/26 MHz
Carrier Frequencies (kHz)	4146 4149	6224 6227 6230	8294 8297	12353 12356 12359 12362 12365	16528 16531 16534 16537 16540 16543 16546	18825 18828 18831 18834 18837 18840 18843	22159 22162 22165 22168 22171 22174 22177	25100 25103 25106 25109 25112 25115 25118

Stations using the single-side band mode shall use only class J3E emissions. Please note that the corresponding assigned frequency is 1.4 kHz higher than the carrier frequency.

3.5 Narrow-Band Direct-Printing (NBDP)

In addition to existing methods, navigational and meteorological warnings and other information shall be transmitted by means of narrow-band direct-printing (NBDP) telegraphy. The class of emission used for this purpose is F1B.

Frequencies used exclusively for distress and safety traffic	Frequencies for transmission of meteorological warnings and urgent information to ships by coast stations (Used for NAVTEX transmissions)	Frequencies for transmission of maritime safety information by coast stations
2174.5 kHz	490 kHz	4210 kHz
4177.5 kHz	518 kHz	6314 kHz
6268 kHz	4209.5 kHz	8416.5 kHz
8376.5 kHz	-	12579 kHz
12520 kHz	-	16806.5 kHz
16695 kHz	-	19680.5 kHz
-	-	22376 kHz
-	-	26100.5 kHz

3.5.1 NAVTEX Frequencies Operational in Seychelles

NAVTEX is a system for the broadcast and automatic reception of maritime safety information, such as navigational warnings, weather forecasts, Search and Rescue (SAR) notices by means of NBDP; basically Navigational Telex (NAVTEX). The NAVTEX coast station in Seychelles (Mahé) transmits the maritime safety information on the frequencies 490 kHz and 518 kHz. The class of emission used for NAVTEX is F1B.

Frequencies used for NAVTEX Transmissions	Class of Emission	Bandwidth (Hz)	Type of Service	Status	Range (NM)		B1 Character	Maximum Transmit Power (W)	Language	Transmission Start Times (U.T.C)
					Day Time	Night Time				
490 kHz.	F1B	500	National	Active	250	400	MIKE (M)	1000	Creole	0200, 0600, 1000, 1400, 1800, 2200
518 kHz	F1B	500	International	Active	250	400	TANGO (T)	1000	English	0310, 0710, 1110, 1510, 1910, 2310

4.0 UHF Frequencies Used for On-board Communications

These UHF frequencies/channels should be used for internal communications on-board a ship, or between a ship and its lifeboats and life-rafts during lifeboat drills or operations, or for communication within a group of vessels being towed or pushed, as well as for line handling and mooring instructions. Users are authorised to operate on any of these UHF frequencies. However, operation of the UHF frequencies will be on shared basis with other users and all entities will have to accept interference from other users.

Frequencies (MHz)		Chanel Spacing	Type of frequencies/channels	Maximum E.R.P (W)
Transmit	Receive			
467.525		25 KHz or 12.5 KHz	Single frequency simplex channels	2
467.550				
467.575				
457.525				
457.550				
457.575				
457.5375		12.5 KHz		
457.5625				
467.5375				
467.5625				
457.525	467.525	25 KHz or 12.5 KHz	Two-frequency semi-duplex channels used with repeater only	
457.550	467.550			
457.575	467.575			
457.5375	467.5375	12.5 KHz		
457.5625	467.5625			

5.0 Making Inmarsat Calls

Service	Inmarsat Country Code
Voice/Fax/Data/Telex	+870

Just dial the Inmarsat country code +870, followed by the Inmarsat mobile number, to reach Inmarsat customer anywhere in the world.

6.0 Additional Information for Mariners

6.1 Cellular Phones

Mobile phones are not recommended as a substitute for the maritime VHF radio distress and communication system. This is due to the operational distance limitation inherent in the cellular phone system and also the limitation of reliability.

6.2 Range of MF/HF and VHF Frequencies

Recommended range for maritime VHF communication is 20 to 30 miles. For distances beyond that, MF and HF communication systems must be employed.

6.3 Proper usage of VHF Channel 16

To facilitate the reception of distress calls, all transmissions on 156.8 MHz (Channel 16) shall be kept to a minimum and shall not exceed 1 minute.